

Orientalmotor



New**m**otion

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Flexibility in Production

with Motors and Drivers from Oriental Motor

The Future of Automation

The Key to Automation is the Realization of “Flexibility within the Production Line Layout”.

In recent years, companies have needed the flexibility to respond to changes in the external environment, such as labor shortages, natural disasters, and other changes in global circumstances. An increasing number of workplaces are looking to adopt automation to replace human labor for transporting loads, work on the production line, and work in areas that are difficult to enter. The number of companies that are transitioning to the use of modules that can be changed to match the production line's configuration is also gradually increasing. The key to solving these issues is the realization of flexibility within the production line layout.

What do modern Companies look for?

Automobile Manufacturer

In the past, permanently installed conveyor belts were used in the automotive industry. However, due to new car models and individual changes, these had to be replaced at regular intervals, which required an expansion of the system and a change in layout each time. To reduce the associated costs, other options were sought and a transport method without conveyor belts began to be considered.

Electronic Equipment Manufacturer

Due to the characteristics of the product, demand for the product can vary greatly depending on the season and region. To build a production system that can handle such variations, the equipment must be modularised so that the layout can be easily changed, even when new processes are added. For example, by eliminating the wiring of power cables and standardising the size of equipment, part of the plant can be modularised.

*Flexible Automation
Equipment and
Lines Concept*

- **Perform automatic transportation without using fixed conveyors**
- **Build a production line using modularised lightweight and compact equipment**
- **Eliminate AC power supply cabling to allow for unimpeded movement**

Illustration

of a Flexible Production Line

Robots to Transfer Loads Between Work Processes

By replacing the transportation conveyors that divided the factory floor with transport robots, more flexible transport can be achieved, resulting in a more efficient production line. Agile robots can move and work even in tight spaces. This is one way to increase area efficiency.



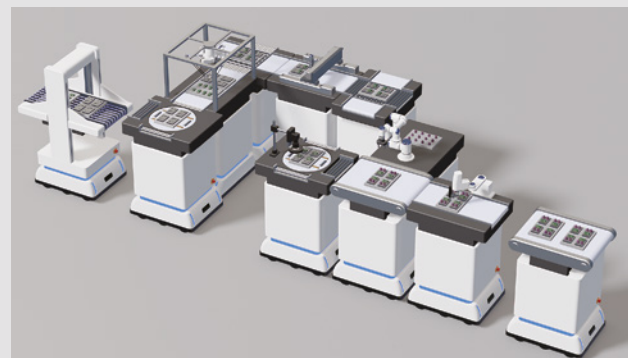
A Modular Production Line that is Reconfigurable to Suit the Product

By modularising the equipment for each process, the layout can be changed to suit the product. To achieve modularisation, all the equipment must be a standard size, and power wiring must be simplified. Because it will be moved, consideration must be given to making the equipment light and compact. Just around the corner is a time when all production facilities will run on battery power, and artificial intelligence will be used to change the factory equipment layout with optimized travel paths.

Layout A



Layout B



Solution:

Our Motors and Drivers

AZ Series Motors, Mini Drivers, and Actuators

Motor



Actuators

Hollow Rotary Actuators
DGII Series



Compact Electric Cylinder
DR Series



Mini Driver

EtherCAT Drive Profile-Compatible RS-485 Communication Type

EtherCAT

Modbus (RTU)



AZD-KRED



AZD-KR2D



Electric Linear Slides
EZS Series

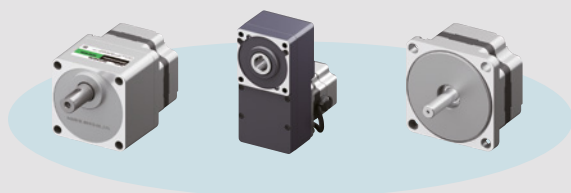


Electric Gripper
EH Series

BLV-R Series

Thanks to precise speed control, smooth starting, stopping and operation are possible even in the low speed range down to 1 rpm. The motor and driver are significantly smaller and lighter than conventional products. The driver is approximately 80% smaller, saving valuable space in the system.

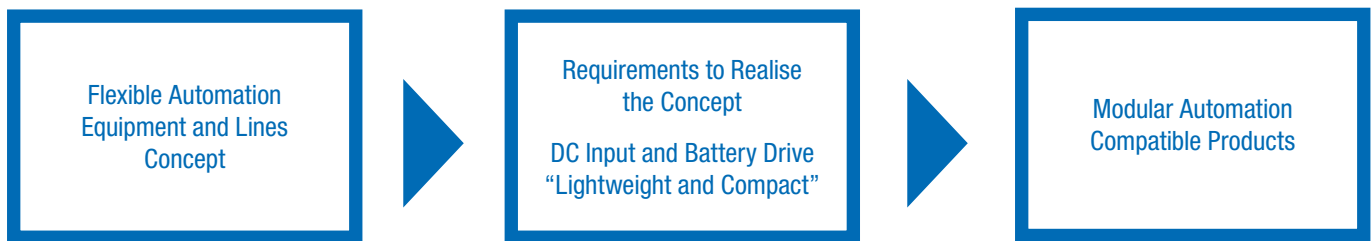
Motor



Driver

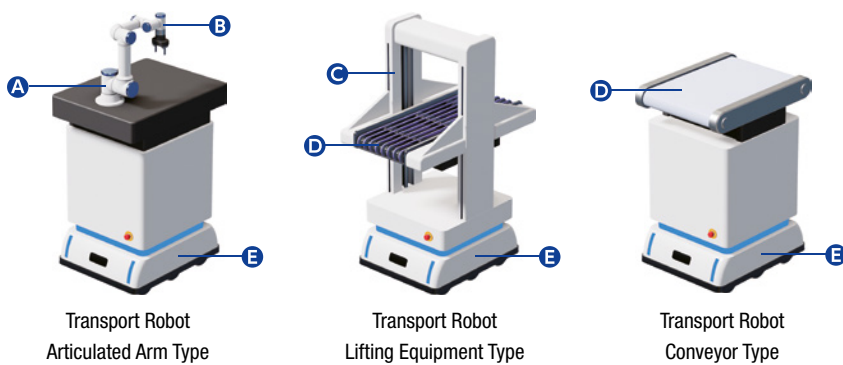


The Implementation of Flexible Automation Systems



For modular automation it is important to use battery-powered, compact and lightweight products. They are ideal for equipment to create the increasingly popular flexible automation equipment and lines, such as transport robots and modularised production facilities.

(Example: Transport Robots for flexible production facilities).



Vertical Articulated Robot ^{A B}
AZ Series
 Hand Unit/Electric Gripper **EH** Series

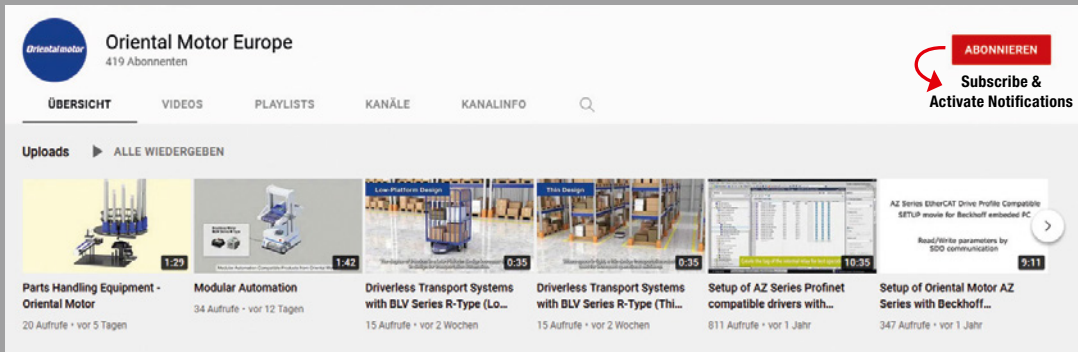
Lifting Equipment ^C
EAS Series / **EZS** Series

Conveyor ^D
BLV-R Series

Vertical Articulated Robot ^E
BLV-R Series

Service

YouTube Channel



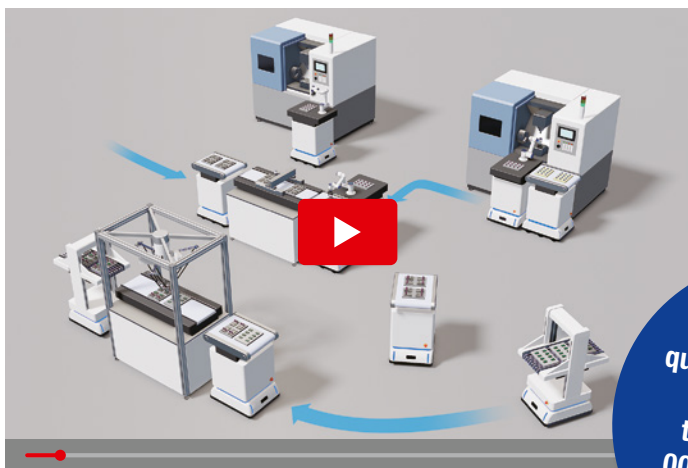
DO YOU ALREADY KNOW OUR
 **YouTube** Channel?



This is where we keep you up to date about our products.

Application Example:

Modular Automation



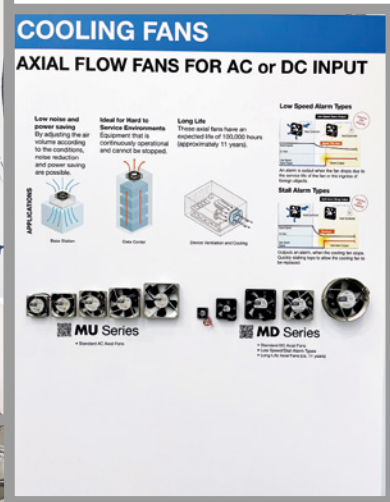
Click here for the
Modular Automation
Video!



If you have any questions, please do not hesitate to contact us on 00800 22 55 66 22 (Free Call Europe).

Hannover Exhibition 2022

Thank you very much for the interesting Conversations





ORIGAMI SNAIL

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You can find instructions in the following video:



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smart production solutions

Orientalmotor

IMPRESSUM

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